

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-4 (Cancelled)

5. (Currently Amended) ~~The controller of claim 1~~ A lighting system variable arc current controller comprising:

an input power factor correction circuit that supplies boosted and converted DC power from an AC power source; and

a start-up circuit adapted to provide a starting voltage to an output power conditioning unit, the start-up circuit including a first circuit adapted to provide a first bias voltage supply to the output power conditioning unit and a second circuit adapted to provide a second bias voltage supply to the input power factor correction circuit, wherein the first circuit is a first voltage doubling rectifier circuit and comprises a first pair of diodes.

6. (Currently Amended) ~~The controller of claim 5~~ A lighting system variable arc current controller comprising:

an input power factor correction circuit that supplies boosted and converted DC power from an AC power source; and

a start-up circuit adapted to provide a starting voltage to an output power conditioning unit, the start-up circuit including a first circuit adapted to provide a first bias voltage supply to the output power conditioning unit and a second circuit adapted to provide a second bias voltage supply to the input power factor correction circuit, wherein the second circuit is a second voltage doubling rectifier circuit and comprises a second pair of diodes.

7. (Cancelled)

8. (Currently Amended) ~~The controller of claim 1~~ A lighting system variable arc current controller comprising:

an input power factor correction circuit that supplies boosted and converted DC

power from an AC power source; and

a start-up circuit adapted to provide a starting voltage to an output power conditioning unit, the start-up circuit including a first circuit adapted to provide a first bias voltage supply to the output power conditioning unit and a second circuit adapted to provide a second bias voltage supply to the input power factor correction circuit, wherein the start-up circuit includes a first zener diode electrically connected to the input power factor correction circuit that limits and regulates the second bias voltage supply.

9. (Original) The controller of claim 8, wherein the start-up circuit includes a second zener diode electrically connected to the output power conditioning unit that limits and regulates the first bias voltage supply.

Claims 10 – 13 (Cancelled)

14. (Original) A variable arc current supply comprising:  
an input power factor correction unit adapted provide a boosted converted DC power;

at least one lamp unit comprising at least one fluorescent gas discharge lamp including electrodes;

a main output transformer having a primary winding and at least one secondary winding, the primary winding connected to the input power factor correction unit and the at least one secondary winding connected to the electrodes and to the at least one lamp unit;

a switching unit connected to said primary winding of said main output transformer;

an output power conditioning unit adapted to control the switching unit to provide voltage to the primary winding of the main output transformer; and

a start-up unit adapted to provide a starting voltage to the output power conditioning unit, wherein a plurality of rectifier circuits are adapted to provide a bias voltage supply to the output power conditioning unit and to the input power factor correction unit.

15. (Original) The supply of claim 14, wherein the starting unit is adapted to provide a starting voltage to the output power conditioning unit.

16. (Original) The supply of claim 14, wherein the start-up circuit includes a first zener diode adapted to limit and regulate the bias voltage supply.

17. (Original) The supply of claim 14, wherein the start-up circuit includes a second zener diode adapted to limit and regulate the bias voltage supply.

18. (Original) The supply of claim 14, wherein a resultant voltage is produced on the at least one secondary winding of the main output transformer and thus provides a heating voltage to the electrodes and the variable arc current to the at least one lamp unit.

19. (Cancelled)